STATEMENT OF BASIS
HB&G BUILDING PRODUCTS, INC.
TROY ALABAMA
FACILITY NO. 210-0003

On February 7, 2020, HB&G submitted a Major Source Operating Permit (MSOP) renewal application for 150 fiberglass column spinning machines with associated equipment. HB&G is an existing facility and its primary products are fiber resin polymer columns and polyurethane molded architectural components. HB&G's current Title V Permit expires on August 8, 2020. There have been no significant changes.

OPERATION:
This facility has 4 operations. The first operation is the PermaCast column producing process. The PermaCast lines are a mixing operation, formulating bulk raw materials (styrene based polyester resin, silica based filler, marble dust and titanium dioxide). Ingredients are charged to one of five high shear mixers. After the batch is prepared, the slurry is transferred to one of eleven low shear-holding mixers. The slurry is drawn from the holding mixers to the spin cast-molding room as needed. Spin molding batches are prepared for one column spin molder at a time. Depending on the column size, a specific quantity of slurry is prepared with fiberglass strands and a catalyst, which is immediately charged to the spin molder.

The second operation is the Architectural Masterworks spray booths. These four booths produce caps, bases, capitals, and molding for columns. Rubber molds are coated with a primer, which serves as a release agent, before pouring a urethane foam mixture into the mold.

The third operation is a spray booth for display items and special order millwork. This operation has no regular production and is used only intermittently. The Display Paint Booth is used to prime display items and special order items.

The fourth operation is the pultrusion machine. This operation produces reinforced plastic columns by pulling a continuous reinforcing material that has been impregnated with resin through a die of the desired cross section to shape and cure the resin. This unit produces square columns in 8" and 10" widths.

HB&G's normal operating schedule is 2,080 hours a year.

EMISSIONS:
Potential emissions of Volatile Organic Compounds (VOCs) exceed the threshold of 100 tons per year. Therefore, HB&G is considered a major source for Title V. HB&G has a requested a VOC emission limit of 245 TPY to avoid being a major source for PSD. Styrene, which is a VOC and Hazardous Air Pollutant (HAP), accounts for most of the emissions from the facility. The facility has agreed to a voluntary HAP emission limit of 99.3 tons per year. The potential HAP emissions are also emitted in such quantities as to exceed major source thresholds. HB&G also has potential emissions of Toluene in excess of 10 tons per year. Potential emissions are based on 8,760 hours of operation per year.

Facility wide

	ACTUAL 2019	POTENTIAL	REQUESTED
VOCs	56.71	193.0	245
HAP	51.87	99.3	
Styrene	51.87	99.3	
PM-10	1.07	14.3	
GHG	0.00	0.00	

REQUIREMENTS:

The entire facility is subject to the Title V permitting program. There are no New Source Performance Standards (NSPS) applicable to this facility. Their potential and requested emissions are less than PSD major source thresholds. Because HB&G is a major source for HAP emissions, this facility is subject to 40 CFR 63 subpart WWWW - National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Hazardous Air Pollutant (HAP) emissions from the Reinforced Plastic Composite Production. This regulation requires HB&G to limit emissions of organic HAP emissions. Under 40 CFR 63.5805(a)(2) of the Fiberglass MACT, because HB&G limits emissions of organic HAPs to less than 100 tons per year, it is required to meet the applicable emissions limits as listed in Table 3 of this subpart. These limits are 25 lb of styrene per ton of resin for centrifugal casting, and for putrusion the facility must reduce total organic HAP emissions by at least 60 weight percent. According to the Safety Data Sheet, the resin used by HB&G contains 43.38% styrene. Using the emission factor formula in Table 1 of subpart WWWW, centrifugal casting emissions are approximately 22.56 lb per ton, which meets the limit. The facility is also subject to the applicable recordkeeping and reporting requirements of this subpart.

The fiberglass operations at HB&G consist of a centrifugal casting process and a pultrusion operation. For the centrifugal casting operation, HB&G is required to use one of the compliance options listed in 40 CFR 63.5810 (a) through (d) to meet the emission limits in Table 3. Under 40 CFR 63.5810, HB&G is allowed to switch between compliance options and is required to complete the emissions calculations within 30 days following the end of each month. HB&G is currently using the compliance option found in 40 CFR 63.5810 (b). For pultrusion, HB&G is required to use one of the compliance options listed in 40 CFR 63.5830 (a) through (e) to meet the emission reduction requirements in Table 3. HB&G is currently using the compliance option found in 40 CFR 63.5830(b).

HB&G is subject to ADEM chapters 335-3-14 and 335-3-16 concerning Air Permits and Major Source Operating Permits respectively because the facility has actual emissions of more than 10 tons per year of a single HAP (Styrene).

CAM will not be applicable as HB&G has no potential emissions of criteria pollutants that exceed 100 tons per year on any one unit with control device(s).

RECOMMENDATION:

I recommend that HB&G be issued a Title V permit 210-0003 with units: (X001) 150-fiberglass column spin molders with associated equipment, (X002) architectural

masterworks - polyurethane molding, (X003) surface coating display paint booth, and (X004) pultrusion machine.

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June 8, 2020
Date
JRG/jrg